UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/774,473	KUROTSU ET AL.
	Examiner	Art Unit	
	LENNIN R. RODRIGUEZ	2625	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>20 January 2008</u>.

2a) ☒ This action is FINAL.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-22</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>10 February 2004</u> is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

       1. ☒ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____.

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed on 2/20/2008 have been fully considered but they are

not persuasive. Applicant's argument that "Nakatsuma is not seen to disclose or to

suggest at least the features of reading out and transmitting to the image-forming device

a portion of the print data re-spooled as the second spool file in the case that re-

spooling in said spooling step is stalled" has been fully considered, in response

"Nakatsuma '132 discloses an information processing apparatus (102 in Fig. 1) for

transmitting print data to an image-forming device which records an image (column 5,

lines 28-31), the apparatus comprising:

        a spooling unit (801 in Fig. 9) for further re-spooling, as a second spool file, print

data spooled by an operating system (column 5, lines 65-66) as a first spool file and

then once de-spooled (column 12, lines 1-28, where data is being spooled by the

Windows spooler then in column 13, lines 52-58 the data already spooled in a first spool

file and stored in a virtual spooler is spooled); and

        a transmission unit (202 in Fig. 2) for reading out and transmitting to said image-

forming device a portion of said print data re-spooled as the second spool file in the

case that re-spooling (column 14, lines 1-5, where after performing the spooling the

data is send to a network printer representing the destination or alternate device, and

where the data being sent is being interpreted as a portion of data) by said spooling unit

is stalled (801 in Fig. 9)".

2.   Drawings objection items 1, 3-4 are sustained.

3.   Specifications objections have been withdrawn in view of the submitted
amendment.

4.   Rejection under 35 U.S.C. 112 second paragraph is sustained.

5.   Rejection under 35 U.S.C.101 has been withdrawn in view of the submitted
amendment for all claims except claim 22.

6.   Double patenting rejection is sustained.

Drawings

7.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)
because they include the following reference character(s) not mentioned in the
description:

          (1) 1215 in Fig. 12;

          (2) 1701, 1702, 1703, 1704 and 1705.

          Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to
the specification to add the reference character(s) in the description in compliance with
37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the
application. Any amended replacement drawing sheet should include all of the figures
appearing on the immediate prior version of the sheet, even if only one figure is being
amended. Each drawing sheet submitted after the filing date of an application must be
labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37
CFR 1.121(d). If the examiner does not accept the changes, the applicant will be

notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

8.   The drawings are objected to because

        (1) 1510 in Fig. 15, "**bite**" should be either – **byte** – or – **bit** --.

        Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

9.   The drawings are objected to under 37 CFR 1.83(a). Figure 15 must show every feature of the invention specified in the claims. Therefore, the data transmission step of transmitting to said image-forming device the print data in the second spool file in segments if it is determined in said data determination step that the amount of data is

below the threshold must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. For the limitation in this claim it appears to the examiner that the only option to transmit data is, if the threshold is below the acceptable value, while in Figure 15 it is shown that it can transmit either if it is below or more than the threshold.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

10.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11.   Claims 6-7, 17-18 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps in claim 6 are: in the case that the data size is more than the predetermined threshold it also transmits data to the image forming device.

Claim Rejections - 35 USC § 101

12.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

13.   Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A "print control program" is being recited; however a "print control program" as presented in the claims is directed to software per se. This subject matter is not limited to that which falls within a statutory category of invention because it is limited to a process, machine, manufacture, or a composition of matter. Software is a function descriptive material and a function descriptive material is non-statutory subject matter.

Claim Rejections - 35 USC § 102

14.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

15.   Claims 1-3, 8-14 and 19-21 are rejected under 35 U.S.C. 102(b) as being
anticipated by Nakatsuma et al. (US Patent 6,115,132).

(1) regarding claims 1, 11 and 12:

Nakatsuma '132 discloses an information processing apparatus (102 in Fig. 1) for
transmitting print data to an image-forming device which records an image (column 5,
lines 28-31), the apparatus comprising:

a spooling unit (801 in Fig. 9) for further re-spooling, as a second spool file, print
data spooled by an operating system (column 5, lines 65-66) as a first spool file and
then once de-spooled (column 12, lines 1-28, where data is being spooled by the
Windows spooler then in column 13, lines 52-58 the data already spooled in a first spool
file and stored in a virtual spooler is spooled); and

a transmission unit (202 in Fig. 2) for reading out and transmitting to said image-
forming device a portion of said print data re-spooled as the second spool file in the
case that re-spooling (column 14, lines 1-5, where after performing the spooling the
data is send to a network printer representing the destination or alternate device, and
where the data being sent is being interpreted as a portion of data) by said spooling unit
is stalled (801 in Fig. 9).

(2) regarding claims 2 and 13:

Nakatsuma '132 further discloses an attaching unit for attaching to the print data
re-spooled by said spooling unit a first job identifier (column 13, lines 20-43) and a
second job identifier different from the first job identifier (column 16, lines 50-58 and
column 24, lines 36-39, where an ID different from the first one its being created); and

a managing unit (710 in Fig. 7) for managing jobs based on the second job

identifier (columns 16-17, lines 58-67 and 1-7 respectively).

(3) regarding claims 3 and 14:

Nakatsuma '132 further discloses wherein the first job identifier is an identifier

issued via the operating system (column 6, lines 59-67 and column 13, lines 20-23,

where the job ID it's being obtained from the virtual print server service which the OS is

controlling).

(4) regarding claims 8 and 19:

Nakatsuma '132 further discloses a retransmission unit (client PC acts as a

retransmission unit, 102 in Fig. 1) for retransmitting to said image-forming device said

print data re-spooled as the second spool file by said spooling unit before the re-

spooling by said spooling unit is finished if transmission to said image-forming device of

the print data is stalled (column 29, lines 24-36 and column 30, lines 26-29, where if an

error occurs is being interpreted as when the data is stalled).

(5) regarding claims 9 and 20:

Nakatsuma '132 further discloses a display unit (207 in Fig. 2) for displaying a

status of said print data re-spooled as the second spool file by said spooling unit

(column 6, lines 37-39); and

if print data for which transmission to said image-forming device is interrupted

due to error is displayed by said display unit, an accepting unit for accepting an

instruction to retransmit such print data (column 30, lines 47-55).

(6) regarding claims 10 and 21:

Nakatsuma '132 further discloses wherein said retransmission unit further comprises an identifier for identifying print data for retransmission using the second job identifier (column 29, lines 33-36).

Claim Rejections - 35 USC § 103

16.   The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

17.   Claims 4-5 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuma et al. (US 6,115,132) in view of Kujirai et al. (US 6,594033).

(1) regarding claims 4 and 15:

Nakatsuma '132 discloses all the subject matter as described above except wherein said transmission unit comprises a segmented transmission unit for dividing and transmitting print data in the second spool file to said image-forming device in segments.

However, Kujirai '033 teaches wherein said transmission unit comprises a segmented transmission unit for dividing and transmitting print data in the second spool file to said image-forming device in segments (column 4, lines 53-61, where the print data is divided into file units).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a transmission unit comprises a segmented transmission unit for dividing and transmitting print data in the second spool file to said image-forming device in segments as taught by Kujirai '033 in the system of Nakatsuma

'132. With this the system can perform more efficiently since it does not consume many resources of transmitting large amounts of data at a certain time.

(2) regarding claims 5 and 16:

Nakatsuma '132 discloses all the subject matter as described above except said transmission unit comprises a write finish detection unit for detecting an end of spooling of a spool file by said spooling unit; and

said segmented transmission unit transmits the print data in the second spool file to said image-forming device in segments if a spool file write finish is not detected by said write finish detection unit.

However, Kujirai '033 teaches said transmission unit comprises a write finish detection unit for detecting an end of spooling of a spool file by said spooling unit (column 9, lines 58-64); and

said segmented transmission unit transmits the print data in the second spool file to said image-forming device in segments if a spool file write finish is not detected by said write finish detection unit (column 9, lines 61-67, where if it is not detected the job end).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a transmission unit comprises a write finish detection unit for detecting an end of spooling of a spool file by said spooling unit and said segmented transmission unit transmits the print data in the second spool file to said image-forming device in segments if a spool file write finish is not detected by said write finish detection unit as taught by Kujirai '033 in the system of Nakatsuma '132. With this

the system can perform more efficiently since it does not consume many resources of transmitting large amounts of data at a certain time.

18.   Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuma et al. (US 6,115,132) in view of Hanazono et al. (US 6,906,821).

Nakatsuma '132 further discloses a print control program executed by an information processing apparatus that transmits print data to an image-forming device and records an image (column 5, lines 28-31), comprises:

code for causing the information processing apparatus to execute a spooling step of further re-spooling print data spooled by an operating system (column 5, lines 65-66) (column 12, lines 1-28, where data is being spooled by the Windows spooler then in column 13, lines 52-58 the data already spooled in a first spool file and stored in a virtual spooler is spooled); and

code for causing the information processing apparatus to execute a transmission step of reading out and transmitting to the image-forming device a portion of said print data re-spooled (column 14, lines 1-5, where after performing the spooling the data is send to a network printer representing the destination or alternate device, and where the data being sent is being interpreted as a portion of data).

Nakatsuma '132 discloses all the subject matter as described above except when an amount of data, which is re-spooled and not yet transmitted to said image-forming device, is below a predetermined threshold, during re-spooling in said spooling step.

However, Hanazono '821 teaches when an amount of data, which is re-spooled and not yet transmitted to said image-forming device, is below a predetermined threshold, during re-spooling in said spooling step (column 13, lines 23-39).

Therefor it would have been obvious to one of ordinary skill in the art at the time the invention was made that when an amount of data, which is re-spooled and not yet transmitted to said image-forming device, is below a predetermined threshold, during re-spooling in said spooling step as taught by Hanazono '821 in the system of Nakatsuma '132. With this the system's performance is increased, due to the fact that that the normal flow of data is achieved by not having excessive amounts of data at once.

Double Patenting

19.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and   *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).
       A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.
       Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

20.   Claims 1-3, 11-14 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 7, 13-15 of copending Application No. 10/775090. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-3 in the present application are directed towards print data spooled by an operating system, where as claims 1-3 of the referenced copending application are directed towards spooling print data created and spooled via a print data creation module. It appears to the examiner that these limitations (operating system in view of creation module) are obvious variations of each other since a creation module could reasonably be an operating system.

        For example regarding claim 1 with regards to application 10/775090:

        A print control program executed by an information processing apparatus that transmits print data to an image-forming device and records an image (claim 1, lines 1-3), the program comprising:

        code for causing said information processing apparatus to execute a spooling step of further re-spooling, as a second spool file, print data spooled by an operating system as a first spool file (claim 1, lines 4-5); and

        code for causing said information processing apparatus to execute a transmission step of reading out and transmitting to the image-forming device a portion of the print data re-spooled as the second spool file during re-spooling in said spooling step (claim 1, lines 8-9).

        The difference between '090 and the present application is that the system is having print data spooled by an operating system. Therefore, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of '090 application as a general teaching for a print control program to perform the same functions as claimed by the present application and do it with an operating system because it would be more efficient for the system to do it that way.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

21.   Claim 11 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 1. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Conclusion

22.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **LENNIN R. RODRIGUEZ** whose telephone number is (571)270-1678. The examiner can normally be reached on Monday - Thursday 7:30am - 6:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on (571) 272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

/Lennin R Rodriguez/
Examiner, Art Unit 2625